

TEXAS RECYCLER



Spring 1996

A Texas Natural Resource Conservation Commission Publication

PD-004/96-1

RAZING CONSCIOUSNESS: FROM RUBBLE TO RICHES

Recycling construction and demolition (C&D) debris is a trend that started long ago.

Did you know the Roman Colosseum built in the first century A.D. wasn't knocked down? In fact, its marble was recovered to build magnificent white houses on a hill overlooking the city. Early Romans routinely salvaged and reused building materials as architectural styles evolved.

In Europe after World War I cities were razed but building materials were routinely recovered. Residents used the debris to rebuild cities from the ground up rather than trying to reconstruct damaged structures. Currently, there is a new push in Europe to adopt standards for the reuse of leftover C&D materials.

The U.S. is moving to catch up to Europe in C&D reuse and recycling, and Texas is making significant progress. Mary Kay Cosmetics, Inc. of Dallas implemented a recycling program while renovating a building for its headquarters. In Austin, the Habitat RE-store is working with

developers of Steiner Ranch in an innovative program to collect building materials to benefit Habitat for Humanity. [see Texas C&D Recycling Innovations article on page 2.]

Most C&D waste is land-filled. In addition to filling 10 to 20 percent of municipal solid waste landfills, C&D debris is disposed of in hundreds of C&D-specific landfills across the

country. C&D materials can be categorized into five groups:

- roadwork – asphalt, concrete and earthfill;
- excavated – earth, sand and stones, and sometimes wood waste and buried pipes;
- building demolition – mixed rubble, concrete, steel beams and pipes, brick, timber and fixture and fitting wastes;
- construction and renovation – wood, roofing, fixtures, wall board, pieces of ducts and pipes, insulation materials and carpet remnants; and
- site clearance – trees, brush, earth, concrete rubble, sand and steel.

However, almost 90 percent of this waste stream is recyclable. The three main marketable recyclables are inert granular products such as asphalt and concrete, wood waste products, and ferrous metals. Two areas in particular are easy to manage because they are typically separated out – asphalt roofing shingles and gypsum wall board.

In addition to reducing material going to landfills, recycling C&D debris saves money. One

Record Pledging Marks Texas Recycles Day

From Lubbock to Luckenbach to Laredo, more than 83,000 Texans celebrated the second annual Texas Recycles Day on November 15, 1995, by pledging to step up their recycling efforts. The figure was more than 20 times greater than 1994 and well above the 1995 goal of 20,000 pledges. In addition, schools, businesses, local governments, civic groups and environmental organizations marked the day by holding more than 160 recycling events across the state. Ninety percent of communities that organized an outreach event on Texas Recycles Day noticed increases in recycling participation and collection rates.

Some Texans found that pledging to recycle can bring more than the satisfaction of helping to reduce waste and conserve natural resources. Take Army Lt. Col. Tony DeWitt for example. By pledging to add plastics, tin and paper to his recyclables, he won a 1995 Jeep Wrangler donated by the Steel Recycling Institute as the grand prize in the Texas Recycles Day drawing. The Jeep, which was presented to DeWitt at a Fort Bliss press conference in

December, was one of nearly \$30,000 in prizes donated for the drawing by businesses that care about the environment. ♻



(continued on page 2)

Razing Consciousness: From Rubble to Riches

(continued from page 1)

Bellevue, Washington company saved Microsoft founder Bill Gates \$44,000 while constructing the corporation's headquarters by recycling wood, gypsum and corrugated cardboard, rather than paying to discard it.

A Portland consulting company saved managers \$200,000 by recycling 96 percent of the debris produced during construction of the Oregon Arena.

Recycling construction material has other advantages.

For example, recycled asphalt compacts more readily, sets faster and absorbs more moisture than virgin material. Although some in the construction industry have not embraced recycled-content construction material, an informa-

tion program for architects, builders and consumers is underway.

Construction professionals are benefiting from this "new" use for C&D materials. Clearly the axiom "everything old is new again" is ringing true. ♻️

Texas C&D Recycling Innovations

Two Texas projects point to the benefits of C&D recycling programs. Mary Kay Cosmetics, Inc., of Dallas and Habitat for Humanity in Austin are programs that deserve attention.

Mary Kay Cosmetics, Inc. implemented a construction waste recycling program with the help of Paula Thompson-Gray of HCB Contractors, during renovation of its new headquarters. Thompson-Gray made waste recycling part of her company's bid for the contract. In addition to separating and recycling debris, materials were re-used, salvaged or donated to needy organizations. HCB Contractors created a video and showed it to every employee. It illustrated easy procedures for separating the leftover materials. Thompson-Gray noted there was great team spirit on the job. Mary Kay Cosmetics and its contractor are proud that they saved landfill space and natural resources, while reducing their landfill fees and producing income by selling some recyclables.

The developer and builders of a planned community near Austin are working with Habitat for Humanity to keep reusable construction materials out of landfills and to help provide homes to low-income families. Steiner Ranch developer MK Development Corp., and builders Newmark Home Corporation, Morrison Homes and Wilshire Homes have joined forces with the Habitat RE-store. "MK Developers have made it easy for their builders to set aside leftover construction materials so that they can be used to benefit Habitat for

Humanity," said Dianne Beaver, Habitat RE-store director. The developer established a fenced site where home builders can deposit discarded construction materials rather than send them to the landfill. Habitat for Humanity retrieves the materials, and either uses them to build homes or sells them at the

Habitat RE-store. Enough materials to build 144 homes are thrown away in Austin each month, according to Steiner Ranch developers. ♻️



Recycling Results

Many cities that held Texas Recycles Day events reported increases in recycling rates.

A few examples of communities that got results are presented below:

City	Event	Material	New Recycling Rate	Increase
Kerrville	Paper Drive	Mixed Paper/Magazines	2.6 tons/month	86 percent
Killeen	Auto Mats. Collection	Motor Oil	107 gallons/day	5,000 percent
Quintana	Collection Contest	Aluminum Cans	494.2 pounds/month	61 percent
Johnson City	Public Education	Newspaper	5,110 pounds/month	28 percent
Corpus Christi	Recycling Fair	Mixed Paper	80 tons/week	6.1 percent
College Station/Bryan	Phone Book Drive	Telephone Books	35 tons/year	40 percent

Aransas National Wildlife Refuge Manager Brent Giezentanner received a "Closing the Circle" award at the White House in Washington, D.C. for establishing an aggressive recycling program. Giezentanner, one of 23 people from around the country to receive the award, designed a program to reduce waste and purchase products made from recycled materials. The national award is issued by the Council on Environmental Quality, which is part of the President's Executive Office. Under Giezentanner's leadership the Refuge buys only recyclable materials. In fiscal 1994 the Refuge recycled about 10,500 pounds of material. Giezentanner also implemented a program that has cleaned and recycled more than 165,000 pounds of scrap metal found on Matagorda Island. If that isn't enough for you, he established an education program for area teachers and schools. He also volunteers at a recycling center on weekends. ♻



Buddy Robinson, Solid Waste Director for the City of Crockett, reports some remarkable recycling results: in 1995 the city recycled more materials than it sent to landfills. Crockett shipped the following recyclables to market in 1995: 160 tons of newspaper, 252 tons of cardboard, 43 tons of plastic, 6 tons of aluminum cans, 72 tons of tin cans, 94 tons of glass, and 312 tons of yard waste. Although the city hauled 771 tons of solid waste, it recycled 938 tons of recyclables in 1995. Crockett is the only city in TNRCC's CLEAN CITIES 2000 program to implement mandatory recycling for residential and commercial customers. They



have curbside pickup as well as a recycling center and a drop-off facility for county residents. ♻



Michael Wallace of La Grange ISD reports that with the help of a \$10,000 Capital Area Planning Council (CAPCO) grant, the district significantly reduced its waste disposal costs. They have cut scheduled trash pick ups by 50 percent and reduced the number of dumpsters from 11 to 8. "This is an all-win situation," said Superintendent Erwin Sladek, Jr. "The district's expenses decrease while the county's recycling income increases." Last year the school gathered only a few small containers of paper per week. Now, they recycle from two to four tons every week. The Central Texas district has an enrollment of 1,850 students. The district cut its waste disposal costs from \$993 to \$351 per month. ♻



Kyle Sims of Plano ISD reports that their recycling program has saved \$100,000 in school district disposal costs since the program started in 1991. Plano has reduced the size of their disposal containers as well as the number of pickups. Since 1991, Plano ISD has diverted 800 tons of material from landfills. They recycle paper and cardboard, and in 1993, began recycling #1 and #2 plastics, steel vegetable cans, and aluminum cans. Since November 1995, they have cut costs by \$45,000 a year by using Champion Recycling. ♻



☐ To receive Market News, TNRCC's monthly newsletter on recycling markets, check here.

TEXAS RECYCLER

If you would like to receive future copies of the Texas Recycler, please correct the mailing label on the reverse side of this coupon, or fill out the information below. You should return your mailing label or coupon to:

**Heidi Wittenborn, Recycling Section, MC 114,
The Texas Natural Resource Conservation Commission,
P.O. Box 13087, Austin, Texas 78711-3087.**

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Please note you must return your mailing label or coupon to remain on our mailing list.

Clean Texas Star Shooting Across Texas

The Clean Texas Star program has taken off. More than 1,400 facilities, businesses, schools and non-profit organizations have requested membership applications. Clean Texas Star members commit to reducing non-hazardous solid waste, increasing purchases of products containing recycled materials, and initiating community activities to improve the environment.

Members gain speedy access to technical assistance and also receive a window decal and certificate to advertise their participation in the program.

Local governments have signed on to help promote the program as Clean Texas Star Partners. Many cities, councils of government (COGs), and municipal departments are helping promote the program, recruit new members, and provide opportunities to recognize local members. There are currently 59 Clean Texas Star Partners throughout the state.

The military has become a major participant. Fort Bliss in El Paso, for example, will ensure that all organizations on the post establish Buy Recycled guidelines. Two elementary schools on the post will begin using TNRCC's Texas School Recycling Guide workbooks.

Sea World, a company that enrolled immediately in Clean Texas Star, even recycles the salt water in which their animals per-

form and live. H.E.B., another charter member, makes it easy for customers to recycle grocery bags. Commercial participation is significant because almost 50 percent of all non-hazardous solid waste is generated by the commercial sector.

The Clean Texas Star program encourages a non-regulatory approach to reducing waste going to landfills, helping to create a clean environment and save money for consumers and business.

For more information, call the TNRCC at 512/239-3180 or e-mail your request for an application to "rmclauri@smtgate.tnrcc.state.tx.us." ♻️



CLEAN
TEXAS
STAR



Clean Texas Reporter

Watch for Clean Texas Reporter, a new environmental series aired by subscribing television stations on local news programs. These 90-second segments produced by TNRCC's CLEAN TEXAS 2000 team, will cover a new topic each week such as reusing grass clippings and leaves, mulching, common-sense watering, low-impact pest management, and much more. Check with your local stations to see if they subscribe, or call CLEAN TEXAS 2000 at 512/239-3159. ♻️

"No Time to Waste, Texas Recycles."

A new video spotlights Texas cities and counties that have overcome common recycling and composting hurdles like costs, markets and participation. The video will help local municipal solid waste decision-makers integrate waste reduction options in their programs. Call TNRCC's Recycling Section at 512/239-6750 to find out how to borrow a copy of the video for use in educating your community leaders. ♻️

Market News.

Market News (PD-008) is a free monthly newsletter bringing you the latest and best information available on markets for recovered materials. Each month, Market News features articles about specific materials, individual market success stories and market trends. To be added to the Market News mailing list, check the box on the attached subscription coupon. ♻️

Survey Says...Most Texans Would Recycle at Work if They Could

Recycling is on the rise in the Lone Star State. Three-quarters of Texans, in fact, say they're recycling more now than they did a year ago. That's one of the key findings of a survey recently conducted for CLEAN TEXAS 2000 by NuStats International of Austin.

"What we see in this research is promising for the future of recycling and other programs in Texas," said TNRCC Chairman Barry McBee. "Coupled with the extraordinary success we had on Texas Recycles Day in 1995, we hope we can boost the statewide recycling rate."

While residential recycling programs have increased steadily over the past few years, the NuStats survey points to other potential areas for significant waste reduction. For example, of

those Texans who have access to recycling programs at work, 86 percent participate in those programs. However, 66 percent of the respondents said they don't have recycling programs at work. It's estimated that half the waste headed to Texas landfills comes from the commercial sector.

The report on Texans' environmental attitudes and behaviors is based on a telephone survey of 808 adults. It measures changes since a similar benchmark survey was conducted for CLEAN TEXAS 2000 in 1993.

Other key findings are listed below.

- Recycling of used motor oil increased to 41 percent of Texans, a jump of 13 percentage points in only two years.
- Half of all Texans (49 percent) shop for products that can be re-

cycled and 41 percent purchase products that are made from recycled materials.

- The proportion of Texans who identify strongly with environmental responsibility has grown from 55 percent in 1993 to 60 percent in 1995. This group is willing to take action to improve the environment, especially through recycling.

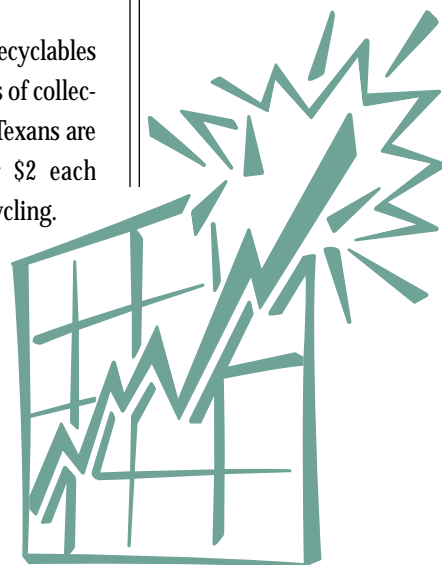
- Knowing the sale of recyclables may not cover the costs of collection, three out of four Texans are willing to pay \$1 or \$2 each month for curbside recycling.

- Aluminum cans continue to be the most recycled commodity in Texas, with 64 percent of citizens recycling cans most or all of the time. Other recycling rates are: newspapers,

41 percent; plastic, 30 percent; steel/tin cans, 30 percent; and glass, 24 percent.

- One-third of Texans are aware of Texas Recycles Day, which was held for the first time in 1994.

For a complete copy of the survey report, please call CLEAN TEXAS 2000 at 512/239-3159. ♻️



A Few More Highlights of Texas Recycles Day '95:



- Co-chairs Linda Smith of H.E.B. Grocery and Ben Walker of the Steel Recycling Institute led a steering committee of 100 volunteers to provide the TNRCC with feedback on planning materials, recycling issues and events.
- The TNRCC commissioners traveled the state for two days by planes, vans and automobiles to attend as many Texas Recycles Day events as time would allow. In fact, the three commissioners covered a total of nearly 2,900 miles to attend 14 events in 13 cities.
- Nearly \$250,000 in free radio and television air time was donated by Texas Association of Broadcasters stations for Texas Recycles Day public service announcements.

NEWS RECYCLING

...from Austin

Garland Luedeke, owner of DS4, Inc., started out repairing computer monitors. After a while, he noticed a growing problem – disposing of computers that could not be repaired. For example, the lead content in computer monitors poses particular disposal problems. Now he has added computer recycling to his business. DS4 recycles computers including CPUs, monitors, keyboards, and printers. It is

estimated that Americans discard 10 million computers a year, with more than 95 percent ending up in landfills.

TNRCC's Recycling Section has added three new staff members. Bill Carter joined the Recycling and Composting team, taking the lead on residential composting. Bill has 14 years experience in recycling, starting with eight years at Ecology Action, moving on to the Texas Department of Agriculture, and then consulting work for The Good Company and R.W. Beck. Rebecca Lallier, Workplace Recycling Specialist, will take the lead on school and university recycling. She serves as president of the Capital Area Corporate Recycling Council and has an extensive

environmental marketing background. Margie McAllister has 14 years experience in government public information, including work for the U.S. Senate Commerce, Science, and Transportation Committee, and in the Texas Legislature. She will coordinate the Texas Recycler newsletter.

...from Galveston

Congratulations to Alison Murray and Paul Alcantar of AMM Recycling Services, Inc. for completing their first year in the recycling business. The company offers residents, including apartment dwellers, twice-a-month curbside pickup for \$2.50 a month. They also have a drop-off facility. The company serves Galveston business customers as well.

The **Texas Recycler** is published by the Texas Natural Resource Conservation Commission.


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Dan Pearson, Exec. Director

The **Texas Recycler** is produced as a project of CLEAN TEXAS 2000 by the Office of Pollution Prevention & Recycling.

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 printed on recycled paper using soy-based ink

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